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Docket No.: 8733.916/00  
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Seok Woo LEE, et al.

Customer No.: 30827

Application No.: 10/665,474

Confirmation No.: 5512

Filed: September 22, 2003

Art Unit: 2871

For: LIQUID CRYSTAL DISPLAY DEVICE

Examiner: Michael H. CALEY

MS Appeal Brief  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF (37 CFR 41.37)**

Sir:

In response to the Notice of Non-Compliant Appeal Brief (37 CFR 41.37) dated December 12, 2006, Applicants submit herewith Amended Appeal Brief.

Dated: April 18, 2007

Respectfully submitted,

By George G. Ballas 40,106  
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**APPELLANT'S AMENDED APPEAL BRIEF**

Sir:

In response to a Final Rejection of all pending claims that was mailed on October 18, 2005 and an Advisory Action that was mailed on February 8, 2006, and in support of a "Notice of Appeal" filed February 21, 2006, Appellants hereby submit this Appeal Brief.

The fees required under § 1.17(f) and any required petition for extension of time for filing this brief and fees therefore are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37(c):

- I. Real Party In Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter

VI. Grounds of Rejection to be Reviewed on Appeal

VII. Argument

Claims Appendix

Evidence Appendix

Related Proceedings Appendix

**I. REAL PARTY IN INTEREST**

The real party in interest for this appeal is: LG.PHILIPS LCD CO., LTD.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

Total Number of Claims in the Application

There are 17 claims pending in the application.

Current Status of Claims

Claims pending: 1-17.

Claims rejected: 1-17.

Claims on Appeal: The claims on appeal are claims 1-17.

**IV. STATUS OF AMENDMENTS**

The Examiner issued a Final Rejection on October 18, 2005 and an Advisory Action on February 8, 2006. No amendment has been filed in response to this Final Rejection or

Advisory action. Accordingly, the claims enclosed herein in the Claims Appendix reflect the current status of claims 1-17.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The claimed subject matter of independent claim 1 is directed to a LCD device, including a main support (FIG. 3, 144) and a liquid crystal panel (FIG. 3, 136) installed on a front surface of the main support. A film (FIG. 3, 156) connected to the liquid crystal panel with a drive integrated circuit (FIG. 3, 155) that drives the liquid crystal panel mounted thereon, wherein the drive integrated circuit is disposed on the film facing the front surface of the main support.

**VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The Examiner rejected claims 1, 7 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,613,599 to Imaeda in view of U.S. Patent No. 4,862,153 to Nakatani.. The Examiner rejected claims 2-6 and 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Imaeda in view of Nakatani and further in view of U.S. Patent 6,160,605 to Murayama. The Examiner rejected claims 11-14, 16, and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Imaeda in view of Nakatani and further in view of U.S. Patent 5,838,412 to Ueda.

**VII. ARGUMENT**

- A. The Examiner improperly rejected claims 1, 7 and 15 as being unpatentable over U.S. Patent No. 6,613,599 to Imaeda in view of U.S. Patent No. 4,862,153 to Nakatani.

The rejection of claims 1, 7 and 15 is respectfully traversed. Claims 1, 7 and 15 are allowable over the cited references in that each of these claims recites a combination of elements including, for example, “a film connected to the liquid crystal panel with a drive integrated

circuit that drives the liquid crystal panel mounted thereon, wherein the drive integrated circuit is disposed on the film facing the front surface of the main support.” None of the cited references including Imaeda, Nakatani, Murayama, and Ueda, singly or in combination, teaches or suggests at least this feature of the claimed invention. The structure of claim 1 of the present invention is different from the Imaeda structure in that Imaeda does not disclose or suggest a “drive integrated circuit is disposed on the film facing the front surface of the main support”.

The Examiner acknowledges that Imaeda does not disclose the details of the frame and the support (Office Action, page 2). Thus, Imaeda cannot disclose or suggest the positional relationship between the drive integrated circuit and these support members as is recited in claim 1. Furthermore, the Examiner cites a separate and alternate embodiment disclose in Imaeda, that of Figure 16, as showing via reference numeral 2010 a main support analogous to the element of Applicants’ claim 1.

Applicants respectfully disagree. First, the reference 2010 refers to the case body, not a main support (Imaeda, col. 18, line 25). In addition, any drive circuit in the embodiment illustrated in Figure 16 placed within case body 2010 cannot be “facing the front surface of the main support”, because the front surface of the case body is located outside and facing away from the interior region of the device in which the drive circuit is located. By contrast, the main support is withing the LCD device and the LCD panel is attached directly to it.

Furthermore, the embodiment illustrated in Figure 16 is presented without any mention of the position of the drive IC relative to any surface of any main support. In addition, it is unlikely that Imaeda’s embodiments shown in Figures 11 and 12 could be applied to the device of Figure 16, because the latter device has considerable size and other physical constraints that would dictate the placement of circuitry, including drive circuitry, within that device. Thus the combination proposed by the Examiner is not suggested in the references, nor do the references render such a combination obvious.

Because Imaeda does not teach or suggest whether, how, or why a “drive integrated circuit is disposed on the film facing the front surface of the main support”, it would not be possible to combine these embodiments.

Accordingly, Applicant respectfully submits that claim 1 is allowable.

Furthermore, claims 7 and 15 are allowable over the cited references at least by virtue of the fact that they depend from claim 1, which is allowable.

- B. The Examiner improperly rejected claims 2-6 and 8-10 under 35 U.S.C. § 103(a) as being unpatentable over Imaeda in view of Nakatani and further in view of U.S. Patent 6,160,605 to Murayama.

Applicant respectfully submits that claims 2-6 and 8-10 are allowable over the cited references at least by virtue of the fact that they depend from claim 1, which is allowable.

- C. The Examiner improperly rejected claims 11-14, 16, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Imaeda in view of Nakatani and further in view of U.S. Patent 5,838,412 to Ueda.

Applicant respectfully submits that claims 11-14, 16, and 17 are allowable over the cited references at least by virtue of the fact that they depend from claim 1, which is allowable.

A copy of the claims involved in the present appeal is attached hereto in the Claims Appendix.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Dated: April 18, 2007

By

  
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**CLAIMS APPENDIX**

**Claims Involved In The Appeal Of Application No. 10/665,474:**

1. (Original) A LCD device, comprising:  
a main support;  
a liquid crystal panel installed on a front surface of the main support; and  
a film connected to the liquid crystal panel with a drive integrated circuit that drives the liquid crystal panel mounted thereon, wherein the drive integrated circuit is disposed on the film facing the front surface of the main support.
2. (Original) The device according to claim 1, further comprising a control board electrically connected to the film.
3. (Original) The device according to claim 2, further comprising a printed circuit board between the film and the control board and having a plurality of signal wiring patterns for transmitting a control signal from the control board to the film.
4. (Original) The device according to claim 3, further comprising a flexible printed circuit film connecting the printed circuit board to the control board.
5. (Original) The device according to claim 4 wherein the printed circuit board faces only the front surface of the main support.
6. (Original) The device according to claim 4, wherein the main support has a side surface and the printed circuit board faces only the side surface of the main support.
7. (Original) The device according to claim 1, further comprising a panel guide between the main support and the liquid crystal panel to support the liquid crystal panel.
8. (Original) The device according to claim 7, wherein the panel guide has a groove into which the drive integrated circuit is inserted.
9. (Original) The device according to claim 2, further comprising a flexible printed



circuit film having a signal wiring pattern connected between the film and the control board.

10. (Original) The device according to claim 2, wherein the control board is disposed at a rear surface of the main support.

11. (Original) The device according to claim 1, further comprising a case top combined with the main support.

12. (Original) The device according to claim 11, wherein the case top is secured to the main support with a plurality of screws.

13. (Original) The device according to claim 11, wherein the case top is made of metal.

14. (Original) The device according to claim 11, wherein the case top is bent to cover an edge of the liquid crystal panel.

15. (Original) The device according to claim 1, further comprising a backlight.

16. (Original) The device according to claim 1, wherein the film includes a data film attached to a data pad on the liquid crystal panel.

17. (Original) The device according to claim 16, wherein the film includes a gate film attached to a gate pad on the liquid crystal panel.

**EVIDENCE APPENDIX**

**Evidence:**

None.

**RELATED PROCEEDINGS APPENDIX**

**Related Proceedings:**

None.